

### R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

#### THE ALLOWABLE SUBJECT MATTER

The Examiner's allowance of claims 4-7 is respectfully acknowledged.

#### THE REMAINING CLAIMS

Claims 1, 3 and 9-24 have been canceled, without prejudice, and claims 2 and 8 have been amended.

More specifically, claim 2 has been amended to depend from allowed claim 6, thereby placing claim 2 in condition for immediate allowance.

In addition, claim 8 has been amended to more clearly recite the distinguishing features of the image forming system of the present invention whereby an optical sheet has at least one portion whose optical property is discontinuous with the rest of the optical sheet, and an image projector is positioned so that a solid angle formed with rays propagating from the projection optical system to the at least one portion is minimized under a restriction on a predetermined positional relationship to the optical sheet, wherein the restriction comprises one of a first condition that the image projector is positioned at a predetermined distance from a major surface of the optical sheet according to a focal distance offered by the projection optical

system, and a second condition that offsetting is performed within a permissible range, in accordance with the disclosure in the specification at page 29, line 4 to page 30, line 1.

No new matter has been added, and it is respectfully submitted that (second) amended claim 8 is in full compliance with the requirements fo 35 USC 112, second paragraph.

Accordingly, it is respectfully requested that the amendments to claim 8 be approved and entered, and that the rejection under 35 USC 112, second paragraph, be withdrawn.

It is respectfully submitted, moreover, that USP 5,206,760 ("Nakashima et al") does not at all disclose, teach or suggest the above described distinguishing features of the present invention as recited in (second) amended claim 8.

Accordingly, it is respectfully requested that the rejection under 35 USC 102 also be withdrawn.

And it is respectfully submitted that (second) amended claim 8 is now in condition for immediate allowance along with already allowed claims 4-7 and allowable claim 2.

#### THE SPECIFICATION

The specification has been amended at page 29, line 4 to page 30, line 1 to make a few minor grammatical improvements.

Submitted herewith is a marked copy of the changed pages to show that no new matter has been added, and a full replacement paragraph is set forth hereinabove. Accordingly, it is

respectfully requested that the amendments to the specification be approved and entered.

\* \* \* \* \*

In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

Claims 2 and 8 have been amended as follows:

2. (Second Amended) The image forming system according to Claim [1] 6, wherein at least one node is formed by convergence of four joint lines that are orthogonal to one another in the form of a cross or three joint lines that are orthogonal to one another in the form of a letter T.

8. (Second Amended) An image forming system comprising:  
an optical sheet having [a unique] at least one portion whose optical property is [unique] discontinuous with the rest of the optical sheet; and

an image projector for projecting an image to said optical sheet through a projection optical system,

wherein said image projector is positioned so that a solid angle formed with rays propagating from the projection optical system to the [unique] at least one portion is minimized under a restriction on a predetermined positional relationship to said optical sheet;

wherein said restriction comprises one of a first condition that the image projector is positioned at a predetermined distance from a major surface of the optical sheet according to a focal distance offered by the projection optical system, and a second condition that offsetting is performed within a permissible range.

sheet and image projector are arranged so that the optical axis 0 will be contained in the plane defined with a tangent vector and a normal vector.

Generally, when the optical sheet 21 has a unique portion whose optical property is unique (for example, discontinuous), such as, the joint surfaces, the image projector 1 should be positioned <sup>so as to</sup> ~~such that~~ minimize the solid angle formed with rays propagating from the projection optical system 20 included in the image projector 1 and the surface of the unique portion. When the image projector 1 is separated infinitely away from the optical sheet 21, the solid angle approaches 0. <sup>In terms of minimizing</sup> ~~When it says that~~ the solid angle, ~~is minimized, it does not mean that~~ the solid angle should <sup>rather</sup> ~~not~~ be minimized without restriction but ~~it means that~~ the solid angle should be minimized under a restriction that the image projector 1 and optical sheet 21 maintain a predetermined positional relationship. The restriction is a condition that the image projector 1 must be positioned at a predetermined distance from the major surface of the optical sheet 21 according to a focal distance offered by the projection optical system 20, or a condition that offsetting must be performed within a range permissible in terms of design. Moreover, the unique portion is not limited to the joint surfaces but refers to a wide range of optically unique portions including a portion of the optical sheet 21

that contains a flaw.

Next, referring to Fig. 17 to Fig. 19, a description will be made on a case where an optical sheet 23 has one joint line 23a extended vertically and three image projectors 1A, 1B, and 1C project images on the optical sheet 23.

The optical sheet 23 is realized by joining two sheet members 23b and 23c, which are lengthwise long, with the margins of the long sides thereof met as the joint line 23a.

The image projectors 1A, 1B, and 1C are arranged vertically nearly equidistantly. The optical axes OA, OB, and OC of the image projectors nearly perpendicularly intersect the joint line 23a at different points. When the optical sheet and image projectors are seen from above, the optical axes intersect, as shown in Fig. 18, the joint line nearly perpendicularly thereto. When the optical sheet and image projectors are viewed from the sides, the optical axes intersect, as shown in Fig. 19, the joint line nearly perpendicularly thereto.

However, each of the optical axes OA, OB, and OC should merely be contained on a plane defined with the tangent vector (direction vector) at a point at which the optical axis intersects the joint line 23a, and the normal vector to the major surface of the optical sheet 21 at the point. Therefore, when the optical sheet and projectors are viewed